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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,900	02/08/2002	Peter H. St. George-Hyslop	1034/1F810US2	2710
7590 06/30/2004		EXAMINER		
DARBY & DARBY P.C.		CARLSON, KAREN C		
805 Third Avenue		ART UNIT		
New York, NY 10022		PAPER NUMBER		

1653

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/071,900	<b>Applicant(s)</b> ST. GEORGE-HYSLOP ET AL.	
	<b>Examiner</b> Karen Cochran Carlson, Ph.D.	<b>Art Unit</b> 1653	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-23 is/are pending in the application.
- 4a) Of the above claim(s) 18-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/19/02</u> . | 6) <input type="checkbox"/> Other: _____  |

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Applicant's election with traverse of Invention II, Claims 7-17 in the paper filed May 4, 2004 is acknowledged. The traversal is on the ground(s) that Applicants urge that Inventions II and III have been classified in Class 435 and thus the search is overlapping. While the class is correct, Applicants have not taken into consideration the subclass distinction between the inventions and therefore this argument is not persuasive. Applicants also argue that the method of Invention II is encompassed in the method of Invention III and therefore the search is co-extensive. Invention II requires presenilin mutants while Invention III does not. Therefore, the methods of Invention II and III are not overlapping.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-6 has been canceled in the transmittal. Claims 18-23 are withdrawn from further consideration by the Examiner because these Claims are drawn to non-elected inventions. Claims 7-17 are currently under examination.

Priority is set to January 9, 1998.

The disclosure is objected to because of the following informalities: The specification is objected to because the "Cross-Reference to Related Applications" at Page 1 needs to be updated. At page 6, "Figure 1" should be amended to read --- Figures 1A-1C ---

Appropriate correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 7-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 7, it is not clear if the mutant presenilin protein also binds to the armadillo protein, or only the fragment. Also in Claims 7 and 12-15, it is not clear what a normal presenilin protein looks like, and therefore what a mutant presenilin protein would look like relative to this sequence. In Claims 12-15, there is no reference sequence provided to know which amino acid residues are defining the armadillo binding fragment. Further, these amino acid residue positions are stated to be a mutated, thus further rendering the claim indefinite because the mutant sequence is not provided. Mutant proteins can comprise substitutions, deletions, and additions. Therefore, the amino acid positions set forth in the claims are "moving targets", depending on the mutant presenilin protein sequence.

In Claim 9, the acronym hNPRAP is not defined. It appears that it is intended that this acronym stands for human neural plakophilin-related armadillo repeat protein, but this definition does not appear to be set forth in the specification. Applicants may wish to provide prior art evidence of the definition of hNPRAP to establish that this acronym is well-known and can be placed in the specification and claims without adding new matter.

The control group of Claim 17 does not appear to have antecedent basis in Claim 7. Claim 7 requires a culture of cells that express armadillo protein and mutant presenilin. Therefore, the control group must also comprise culture of cells that express armadillo protein and mutant presenilin or there can be no comparison between the two cultures regarding the activity of the test substance. If the control group comprises wild-type presenilin, then there can be no comparison of the activity of the test substance between two different cultures.

No Claims are allowed.

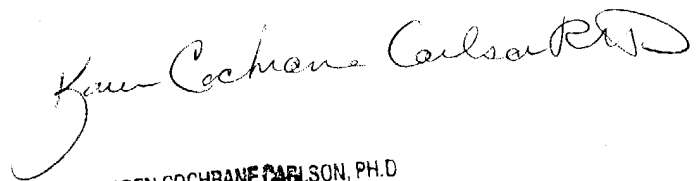
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cochrane Carlson, Ph.D. whose telephone number is 571-272-0946. The examiner can normally be reached on 7:00 AM - 4:00 PM, off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Christopher Low can be reached on 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KAREN COCHRANE CARLSON, PH.D.  
PRIMARY EXAMINER